

England. - Parliament. - House of Commons. - Proceedings. - 1
x + 8532.6.4.
1-2

A

REPORT
FROM THE
COMMITTEE,
APPOINTED

(Upon the 1st Day of *December* 1758)

To Enquire into

The Original Standards
OF
WEIGHTS and MEASURES
IN THIS
KINGDOM,

And to consider

The LAWS relating thereto.

WITH

The PROCEEDINGS of the House thereupon.

Published by Order of the House of COMMONS.

L O N D O N,

Printed for JOHN WHISTON, at Mr. Boyle's Head, CHARLES
BATHURST, at the *Cross-Keys*, in *Fleet-street*; LOCKYER DAVIS,
opposite *Grays-Inn-Gate*, in *Holbourn*; and WILLIAM BOWYER,
in *White Friers*. MDCCLIX.

Jovis, 12 Die Aprilis, 1759.

By Virtue of an Order of the House of Commons,
this Day made, I do appoint John Whiston,
Charles Bathurst, Lockyer Davis, and William
Bowyer, to print this Report, with the Proceedings of
the said House thereupon; and that no other Person do
presume to print the same.

AR: ONSLOW, Speaker.



A

R E P O R T
F R O M T H E
C O M M I T T E E,
A P P O I N T E D

(Upon the 1st Day of *December* 1758)

To Enquire into

The ORIGINAL STANDARDS of WEIGHTS
and MEASURES in this Kingdom, and to
consider the LAWS relating thereto.

W I T H

The PROCEEDINGS of the House thereupon.

Veneris, 6 Die Aprilis, 1759.

Ordered,

THAT the Report from the Committee, who were appointed to inquire into the original Standards of Weights and Measures in this Kingdom, and to consider the Laws relating thereto, and to report their Observations thereupon, together with their Opinion, of the most effectual Means for ascertaining and enforcing uniform and certain Standards of Weights and Measures to be used for the future, be received upon *Wednesday* Morning next.

Mercurii

Mercurii, 11 Die Aprilis, 1759,

The Lord *Carysfort* (according to Order) reported from the Committee appointed to inquire into the original Standards of Weights and Measures in this Kingdom, and to consider the Laws relating thereto, and to report their Observations thereupon, together with their Opinion of the most effectual Means for ascertaining and enforcing uniform and certain Standards of Weights and Measures to be used for the future; that the Committee had inquired accordingly, and had considered the Laws relating thereto, and had directed him to report the Observations of the Committee thereupon, together with their Opinion of the most effectual Means for ascertaining and enforcing uniform and certain Standards of Weights and Measures to be used for the future; and he read the Report in his Place, and afterwards delivered it in at the Table, together with several Weights, and a pattern Weight, and also a Model of a Handle for an Half-hundred Weight, referred to in the said Report.

Ordered,

That the said Report be taken into Consideration To-morrow Morning.

Jovis, 12 Die Aprilis, 1759.

The other Order of the Day being read;

The House proceeded to take into Consideration, the Report from the Committee appointed to inquire into the original Standards of Weights and Measures in this Kingdom, and to consider the Laws relating thereto, and to report their Observations thereupon, together with their Opinion of the most effectual Means for ascertaining and enforcing uniform and certain Standards of Weights and Measures to be used for the future.

And the said Report was read, and is as followeth, *viz.*

The Committee appointed to inquire into the original Standards of Weights and Measures in this Kingdom, and to consider the Laws relating thereto, and to report their Observations thereupon, together with their Opinion of the most effectual Means of ascertaining, and enforcing, uniform, and certain Standards of Weights and Measures, to be used for the future, have pursuant to the Order of the House inquired into and considered of the Matters referred to them; and have agreed to report.

I. **T**HEIR Proceedings in Order to adjust and establish certain Standards of Measures and Weights to be used throughout the Kingdom.

II. The

II. The Means which have been proposed as absolutely necessary to enforce and preserve Uniformity in the Use of Weights and Measures for the Time to come.

III. And Lastly, Their Opinion thereupon.

Ist. Your Committee observing by several Resolutions of a Committee appointed last Session for the same Purposes with the present Committee, and which Resolutions were agreed to by the House on the 2d June 1758; that the Measure of Length called a Yard was fixed and referred to a certain Distance — upon a Brass Rod then delivered at the Table, and ordered to be kept by the Clerk of the House; that one third part of the said Yard should be a Foot; and the twelfth Part of that Foot one Inch, and also that all other Measures of Length should be taken in Parts, Multiples, or Proportions of the said Yard; found nothing further necessary with Regard to Measures of that Kind, than to adjust, with Reference to the said Standard, the Extent of the most usual Denominations, and Compositions of such Measures; and consequently

The Ell ought to contain — one Yard and one Quarter.

The Pole or Perch - five Yards and a Half.

The Furlong - 220 Yards.

The Mile - 1760 Yards.

The Measure of Land was established by Stat. 33d Edw. I. intituled, An Ordinance for measuring of Land, which, assuming the Perch and Foot as known Measures, ascertains the Acre by taking the several Sides of an Acre from ten Perches to forty-five in Length, and then describing the Breadth necessary to form an Acre according to each respective Length mentioned in the Ordinance. From all which it appears that the Acre was meant to contain 160 square Perches.

The Committee, proceeding according to the Resolutions agreed to by the House last Session, found that the superficial Pole or Perch should contain thirty square Yards and a Quarter.

The Rood - - - 1210 square Yards

The Acre - - - 4840 square Yards.

The Measures of Capacity are; by the Resolutions reported by the former Committee upon this Subject; and agreed to by the House 2d June 1758 ascertained by cubical Inches, of which the Gallon is fixed to contain 282.

The Quart to be one-fourth of the Gallon;

The Pint one-half of the Quart,

The Bushel to contain — eight Gallons,

The Quarter - eight Bushels.

And all other Measures of Capacity are to be taken in Parts, Multiples, or proportional Parts of the Gallon.

Pursuant therefore to those Resolutions,

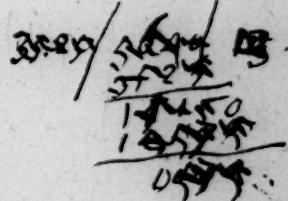
The Quart ought to contain - - - 70 $\frac{1}{4}$ Cubical Inches

The Pint - - - 35 $\frac{1}{4}$

The Peck - - - 564

The Bushel - - - 2,256

The Quarter - - - 18,048;



But the Size of this Measure rendering it unwieldy it is seldom used as an Instrument for measuring.

By the said Resolutions relating to Measures of Capacity all Measures of the same Denomination, whether of Liquids, or of dry Goods, are to contain the same Number of cubical Inches, and all Goods, measured by such Measures, are not to be heaped but stricken with a round Strike of the same Diameter from one End to the other.

These Qualifications prevent the Measures subject to them from being applicable to several Commodities, in the measuring of which a Bushel has been used, as Coals, Lime, Turnips, Apples, Potatoes and the like which several Things cannot be striken; and therefore the Bushel cannot determine the Quantity of them; for it becomes by this Means only a Cylinder of $18\frac{1}{2}$ Inches diameter and eight Inches deep or (for Coals) $19\frac{1}{2}$ Inches diameter, on which an irregular Pyramid is erected, according to the Skill of the Person employed in the Performance.

The most obvious and natural Method, of discovering the Quantity of such Commodities, is manifestly by Weight, but the general Usage of applying Measures to them, and the Legislature having adopted that Method, and endeavoured to enforce it, your Committee submit whether any new Regulation in Respect to those Commodities should be made, or if they should be left as the Law now stands.

It being suggested to the Committee, that fixing the Number of cubical Inches, which Measures of Capacity were to contain, might not, without some farther Regulation be sufficient, especially in the larger Measures, because in all compressible Goods the Depth of the Measure would occasion its holding more by the Weight of the Commodity, than a Measure of the same Capacity broad and shallow would contain. And although upon Trial made before your Committee with great Exactness by Mr. *Bird*, it did not appear, that the Difference, in Wheat measured by a deep, and also by a shallow Instrument, was at all considerable, yet, as there might by that means be Room left for Artifice and Slight, it was thought necessary to state, that the Bushel should not exceed 8 Inches in Depth, the Peck $5\frac{1}{2}$ Inches, and the Gallon 5 Inches for dry Goods only, since Liquids are not in their Nature compressible. Your Committee must at the same Time observe, that, if the above Regulation of the Depth of dry Measures is thought proper, it will be attended with this Inconvenience, that there must be two different Sorts of Measures of the same Capacity, and Denomination, one for dry Goods, and the other for Liquids, because the last not only do not require such a Restraint of the Depth, but cannot with Convenience in Practice admit of such shallow Measures; and the permitting of such different Forms of Measures may introduce many greater Frauds and Evils than the Restraint will remedy.

The Resolution of the former Committee agreed to by the House 2d June 1758 ascertains the Standard of Weight to be the Pound then delivered to the House, and the Twelfth Part of that Pound to be an Ounce, the 20th Part of such Ounce to be the Pennyweight, and the 24th Part of that Pennyweight a Grain, and all other Weights to be taken from Parts, Multiples, or certain Proportions of the said Standard Pound.

Your

Your Committee thought it necessary in the first Place to obtain, with the utmost possible Exactness, Standard Weights of the several Parts of the said Pound, in order that from thence such other Combinations, or Proportions of Weight might be formed, as the Business or Necessities of the Subject should hereafter require. And Mr. *Harris* was employed by the Committee to make these several Parts who accordingly did so with great Skill and Attention by a very curious and accurate Apparatus contrived on Purpose. It was adapted to five different Beams which ascertained the Weights from 12 Ounces or one Pound down to a Grain inclusive; and that with so great Exactness as to discern any Error in the Pound Weight to the 230,400th Part of the Weight, and to the 2000th Part of a single Grain.

By these Beams the several following Parts of the Standard Pound were examined, and adjusted by Mr. *Harris* in the Presence of your Committee, and were found to be what their Denominations import. These several Parts were tryed in every progressive Combination necessary to discover their Proportions to each other *viz.*

The Pound against the 3 } Ounce Weights
2 }
1 }

The 6 Ounce Weight against the 3 } Ounce Weights
2 }
1 }

The 3 Ounce Weight against the 2 } Ounce Weights.
1 }

The 2 Ounce Weight against the one Ounce and 2
two half Ounces }

The 1 Ounce Weight against the two half Ounces.

The $\frac{1}{2}$ Ounce Weight against the $\frac{1}{2}$ Ounce

The $\frac{1}{2}$ Ounce Weight against the 5 } Penny-weights.
3 }
2 }

The 5 Penny-weight against the 3 } Penny-weights.
2 }

The 3 Penny-weight against the 2 } Penny-weights
1 }

The 2 Penny-weight against the 1 Penny-weight, and

12 }
6 }
3 } Grains.
2 }
1 }
6 }
3 } Grains
2 }
1 }

The 12 Grains against the

The

The 6 Grains against the	3 } Grains
The 3 Grains against the	2 } Grains
The 2 Grains against the	1 } Grain.

And, upon all these Trials, the several Weights appeared to your Committee so exact, that no greater Degree of Correctness could, in the Nature of the Thing, be expected.

The Weights thus adjusted in the Presence of your Committee, and which are herewith presented to the House, are the following, *viz.*

Half a Pound or	6 Ounces
Quarter — or	3 Ditto
	2 Ditto
	1 Ditto
	2 of Half an Ounce each.

Penny-weights—5, 3, 2 and 1

Grains. — 12, 6, 3, 2 and 2 of one each

And Mr. *Harris* has procured, by Order of your Committee, two Sets of the following Multiples of the Standard Pound, all of fine Brass which he will adjust with an Apparatus also contrived on Purpose as soon as possible, *viz.*

2 Pounds
4 Ditto
8 Ditto
16 Ditto
32 Ditto.

These Multiples of the Standard Pound, together with that Pound, and the Parts thereof, adjusted in the Presence of your Committee, and which Parts are herewith presented to the House, will be sufficient for sizing and adjusting any Combination of Weight, which can be hereafter required for Use.

The aforesaid Resolutions relating to Weights agreed to by the House the 2d June 1758, having fixed the Standard to be the Pound, therein described, and all other Weights to be derived therefrom, in Parts, Multiples, or certain Proportions, your Committee found it necessary to enquire into the Proportion, which the Weight, called Avoirdupois, bears to the Pound mentioned in the said Resolutions. And upon repeated Trials by the Apparatus at Mr. *Harris*'s mentioned before; they found the Proportion to be according to the following Table; whereby the Avoirdupois Weights from a Ton to $\frac{1}{4}$ of a Dram, and also the Apothecaries Weight to a Scruple, are turned into equal corresponding Weights in Multiples, and Parts of the Standard Pound, referred to in the aforesaid Resolutions, and presented to the House the last Session.

TABLE of Avoirdepois and Apothecaries Weight turned into Standard

Avoirdepois		Standard				Avoirdepois		Standard			
Great Weights.	lb.	lb.	oz.	dwt.	grs.	Ounces	lb.	oz.	dwt.	grs.	Parts.
Ton =	2240	2725	4	—	—	15	13	13	18	—	121
$\frac{3}{4}$ —	1680	2044	—	—	—	14	12	15	12	—	
$\frac{1}{2}$ —	1120	1362	8	—	—	13	11	17	6	—	
$\frac{1}{4}$ —	560	681	4	—	—	$\frac{1}{4}$ lb.	12	10	19	—	
Hundreds	9 -	1008	1226	4	16	—	11	10	—	18	
8 -	896	1090	1	12	—	10	9	2	12		
7 -	784	953	10	8	—	9	8	4	6		
6 -	672	817	7	4	—	$\frac{1}{2}$ lb.	8	7	6	—	
5 -	560	681	4	—	—	7	6	7	18		
4 -	448	545	—	16	—	6	5	9	12		
3 -	336	408	9	12	—	5	4	11	6		
2 -	224	272	6	8	—	$\frac{1}{4}$ lb.	4	3	13	—	
1 -	112	136	3	4	—	3	2	14	18		
$\frac{3}{4}$ —	84	102	2	8	—	2	1	16	12		
$\frac{1}{2}$ —	56	68	1	12	—	1	18	6	6		
$\frac{1}{4}$ —	28	34	—	16	—	Drams	15	17	2	$\frac{1}{4}$	
$\frac{1}{8}$ —	14	17	—	8	—	14	15	23	$\frac{1}{4}$		
Pounds	1000	1216	8	—	—	13	14	19	$\frac{1}{8}$		
900	1095	—	—	—	—	$\frac{1}{4}$ Oz.	12	13	16	$\frac{1}{2}$	
800	973	4	—	—	—	11	12	13	$\frac{1}{8}$		
700	851	8	—	—	—	10	11	9	$\frac{1}{4}$		
600	730	—	—	—	—	9	10	6	$\frac{3}{8}$		
500	608	4	—	—	—	$\frac{1}{2}$ Oz.	8	9	3	$\frac{1}{8}$	
400	486	8	—	—	—	7	7	23	$\frac{1}{4}$		
300	365	—	—	—	—	6	6	20	$\frac{1}{4}$		
200	243	4	—	—	—	$\frac{1}{4}$ Oz.	5	5	16	$\frac{7}{8}$	
100	121	8	—	—	—	4	4	13	$\frac{1}{8}$		
90	109	6	—	—	—	3	3	10	$\frac{1}{8}$		
80	97	4	—	—	—	2	2	6	$\frac{3}{4}$		
70	85	2	—	—	—	1	1	3	$\frac{1}{4}$		
60	73	—	—	—	—	$\frac{3}{4}$	—	20	$\frac{1}{3}$		
50	60	10	—	—	—	$\frac{1}{2}$	—	13	$\frac{2}{3}$		
40	48	8	—	—	—	$\frac{1}{4}$	—	6	$\frac{2}{3}$		
30	36	6	—	—	—						
20	24	4	—	—	—	Apoth. Weight		dw	gr.		
10	12	2	—	—	—	Drams	7	—	17	12	
9	10	11	8	—	—		6	—	15	—	
8	9	8	16	—	—		5	—	12	12	
7	8	6	4	—	—	$\frac{1}{2}$ Oz.	4	—	10	—	
6	7	3	12	—	—		3	—	7	12	
5	6	1	—	—	—	$\frac{1}{4}$ Oz.	2	—	5	—	
4	4	10	8	—	—		1	—	2	12	
3	3	7	16	—	—	Scuples	2	—	1	16	
2	2	5	4	—	—		1	—	—	20	
1	1	2	12	—	—						

C

The

261.216

20
80

216

5

1083
2866216.216
4
8661896
195
900195
4
8801. 216
1009195
200/970/11.

The above Table is calculated with perfect Exactness, and no Fraction of a Grain occurs till the Dram Weights.

And your Committee submit, whether when the Fraction is so minute; as it is in the Parts of a Dram, it would not be proper to consider it as a Grain and add it to the Weight — The Difference though it happens in the small Weights being so inconsiderable, that it is apprehended the Convenience to the Subjects, by avoiding the Fraction, will be much greater, than any Advantage that can arise by attending to such Minuteness.

And, in order to know what might be the Effect of abolishing the Avoirdepois Weight, as a different standard Weight, from that mentioned in the said Resolution, they examined Mr. *Joseph Creswick*, Clerk of the Rates, Mr. *William Bisset* in the Accomptant-General's Office, and Mr. *Frewin* Land-Surveyor of the Port of *London* in Relation thereto; and Mr. *Joseph Creswick* informed your Committee that laying aside the Use of the Avoirdepois Weights intirely, would create great Difficulties in collecting the public Revenues, on Account of the Number of Fractions — but that those Difficulties might be got over by employing a Number of Hands — that he made his Estimation of these Difficulties in the Computation of the Duty on a Pound of Tobacco which he thought the most simple Thing; for

Supposing a Pound Avoirdepois to be 7002 Grains

And a Troy Pound 5760

Then the Rate to be charged for the Avoirdepois Pound must be to the Rate charged for the Troy Pound above-mentioned as 100 to $82\frac{1}{3}\frac{2}{3}$, and the Difference *per Cent.* will be $17\frac{8}{9}\frac{7}{9}$. He added, that if the Fractions could be reconciled, the same Method of computing which is now made use of might be followed exactly with the same Ease. In all this, Mr. *Frewin* and Mr. *Bisset* agreed in Opinion with Mr. *Creswick*.

It was also observed to your Committee that the Practice of delivering out Weights, regularly and legally sized, had been hitherto confined to such specifick Weights as were in the Possession of the Persons authorized to size the same, and that no other Weights though Parts, Multiples, or bearing an exact Proportion to the Standards, could be legally obtained; and therefore unless Care was taken to provide a Remedy, the aforesaid Resolutions (particularly the Eleventh Resolution) would not only abolish the Avoirdepois Weight, but likewise those used by Apothecaries, and referred to in all Medicinal Prescriptions.

But the Correspondence, of the Avoirdepois Weight with the said Standard Pound, being, according to the aforesaid Table, ascertained; and the Apothecaries Weight being only a different Sub-division of the Troy Pound, with different Names annexed to two of those Divisions, viz. 20 Troy Grains are called a Scruple, and 60 Grains or three Scruples called a Dram, Your Committee apprehend that all the Inconveniencies, imagined likely to arise, from adhering to the said Standard, will be avoided, and the Advantage of Uniformity, and Prevention of Fraud will be obtained, if those who shall be appointed to size and ascertain Weights hereafter are impowered to ascertain, and deliver out to such as require them any Weights, being Parts, Multiples,

tiples, or bearing any Proportion to the said Standard Pound; provided that the Weight, according to the said Standard, be marked upon each Mass so sized and delivered. And by the said Table it will appear, in what Manner such a Power might be executed and operate particularly in Respect to the Weight called Avoirdupois. For by that Table it appears, what Standard Weight a Person would receive who desired a Weight equal to the Avoirdupois Weight mentioned in the Column intituled Avoirdupois, and by using Weights so marked, all Difficulties of Computation in reducing the Avoirdupois to the Standard, and all minute Fractions in computing Duties, or Prices of Goods will be avoided.

For Instance if the Weight called the Pound Avoirdupois is necessarily used at the Custom-house, or elsewhere, a Weight according to the Standard being one Pound two Ounces and twelve Penny-weight, and marked as such is equal to it, and therefore this Weight being used, the Duties may be computed as formerly on the Pound Avoirdupois: The Denomination only and not the Quantity being really altered. And this will equally hold with all other Weights, whether Multiples, or Parts of the proposed Standard. The medicinal Weights also will be the same, as those now in Use, only marked by the Number of Grains, and, if desired, distinguished also by the Mark used in medicinal Prescriptions.

The Materials, of which Weights for the future ought to be made, also deserve Attention. The usual Practice, in large Weights, has been to use Lead, or other soft Metal for the more easy adjusting the Masses to the Standard; though the greatest Part of the Weight is made of a hard Metal such as Cast Iron; but your Committee (observing that by this Practice the Weight itself was easily altered and that the sizing of it could not be any permanent Evidence of its Exactness since Lead might be added to it or cut away from it at the Will of the Owner) examined Mr. Freeman a Maker of Scales and Weights, who said that the soft Metals were not absolutely necessary; and that Weights of Cast Iron might by the Help of other hard Metals such as Brass or what is called Pot-metal be, he believed, adjusted to the Standard, and marked so as not to be subject to the Frauds, or Variations, which Lead is liable to: and he produced to your Committee Patterns of Weights made accordingly, and he said that the Difference of the Prices of Weights made in this Manner would be as follows.

Weights Avoirdupois	Price as usu- ally made at present.	Price if made as the Patterns pro- duced	Expence on each re-ad- justing		
			l.	s.	d.
14 lb	0 : 2 : 6	0 : 4 : 0	0 :	0 :	9
$\frac{1}{4}$ Cwt.	0 : 4 : 0	0 : 6 : 0	0 :	1 :	0
$\frac{1}{2}$ Cwt.	0 : 7 : 0	0 : 10 : 0	0 :	1 :	6
1 Cwt.	0 : 14 : 0	0 : 18 : 0	0 :	2 :	0

And

And if the Weights were to be made of Bell-metal, the Price would be one Shilling *per* Pound of the Metal.

And he said that in these large Weights it was necessary to re-adjust them frequently, the constant use of them (often in a careless Manner) reducing them considerably; and that he is quarterly employed to adjust the Weights used at the Custom-house.

By this Account your Committee observing that a very great Charge would be laid upon the Subjects by the additional Price incurred by those hard Metals, by which Weights must be adjusted, directed Mr. Freeman to make a Pattern Weight of cast Iron of a Form, which might be less liable to Injury from Use, and which might be adjusted, and marked on the Handle, so as not to be easily altered by the Owner, and yet be of nearly the same Price with the Iron Weights now in Use.

Mr. Freeman accordingly produced to your Committee a Weight, made pursuant to their Directions, which is herewith presented to the House, not as being an exact Weight, but as a Specimen only of the Form in which large Weights ought to be made, and of the manner in which they should be marked. The adjusting may always be easy, and also cheap to the Subject by the upper Piece or Bar of filed Iron on the Handle (a Model of a Handle for a Half-hundred Weight is, also herewith produced) And both Mr. Freeman and Mr. Reed, another Scale-maker, agreed, that if such Weights were in common Use the Price would not be above 6d. each Weight more than the Price now paid for the common Weights and that the re-adjusting would be from 6d. to 12d. *per* Weight and not more — But after making Weights by the Direction of the Committee they were of Opinion that the Price would not be increased.

They likewise informed your Committee that the Price of the Sets of Weights following would be *viz.*

Weights equal to the following Avoirdepois Weights a Set

	lb.	
$\frac{1}{2}$ Cwt.	56	
$\frac{1}{2}$ Cwt.	28	
Stone	14	All of cast Iron as } Formerly 18s. now
	7	now proposed. } proposed 20s.
	4	
	2	
	1	

lb.	All of Brass — Price 2s.
$\frac{1}{2}$	
$\frac{1}{4}$	
$\frac{1}{2}$ Oz.	
$\frac{1}{4}$	
$\frac{1}{2}$	
2 Drams	

Standard

Standard	Oz.	256	Brass Bell Fashion - 1l. 17s. Price
		128	
		64	
		32	
		16	
		8	
		4	
		2	
		1	
		1/2	
		1/4	
		1/8	

2 of 1

which are the same with the Sets now used at the Exchequer.

The smaller Weights, from a Pound through all its Parts, are most conveniently made of Copper, Brass, or other such hard Metal; and should not be made of, or adjusted with Lead or other soft Metals. And the only Guard, against fraudulent Alterations of such Weights, must entirely depend, as the larger Weights must also chiefly, upon the Regulations which shall be made to inforce, and preserve Uniformity, in the Use of what the Legislature shall think fit to establish which falls under the 2d Head of this Report *viz.*

II. The Means proposed as absolutely necessary to inforce and preserve Uniformity in the Use of Weights and Measures for the Time to come.

The repeated Endeavours of the Legislature, ever since *Magna Charta*, to compel the Use of one Weight, and one Measure throughout the Realm, never having proved effectual, there seems little to be expected from reviving Means, which Experience has shewn to be inadequate; and yet it is very difficult to devise any thing entirely unattempted by former Parliaments; for,

1. Weights and Measures were to be sealed with the King's Seal, they were also to be marked with the Seal of the Shire Town, they were to be examined by the Mayor, or Bailiffs twice in the Year, and Stat. Edw. I. the Standards were to be kept by the Mayor, Bailiffs, and six sworn c. 8. 9. lawful Persons of the same Town, before whom all Measures were also 18 Edw. II. to be sealed; it was also made presentable at the Leet to use false or double Measures, and to these Regulations were added Fines Amercements and even Imprisonments.

2. The Treasurer was then ordered to cause Standards of Brass to 14 Edw. III. be made, and sent to every County, and two or more Persons were in each County to be assigned, to survey Weights and Measures, yearly within Franchise and without, to hear and determine, to fine and imprison, and account to the Crown for three fourths of all the Money by these Means levied.

This Commission was four Years after repealed, with Marks of par- 18 Edw. III. liamentary Disapprobation; but Experience soon testified that the ordinary Jurisdiction in the Country was insufficient to inforce the Law of Weights and Measures and that, where either the Crown had no immediate Interest, or no particular Persons were appointed to watch

over that special Set of Laws, Obedience to Regulations of Weights
 25 Edw. III. and Measures could not be expected: therefore the Legislature was
 27 Edw. III. forced again to have Recourse to Persons specially appointed, by the
 31 Edw. III. Crown, to hear, determine, and punish Offences respecting Weights
 and Measures with such Directions for exercising their Jurisdiction as
 seemed proper to avoid the Objections to which the first Commission
 of this kind was liable.

This Power in the Crown, to assign special Commissioners, was
 34 Edw. III. thought by Parliament of so much Consequence, that it was con-
 tinued expressly even after Justices of the Peace were appointed, after
 Magistrates of Cities and Boroughs were directed to execute those
 Laws, and stands hitherto unrepealed, though it does not appear, that
 such Commissions were afterwards issued.

3. The Busines of Weights and Measures being made Part of the
 ordinary Jurisdiction of Justices of the Peace, and of Magistrates of
 Cities and Boroughs &c. the next Care of the Legislature was to
 establish and disperse exact Weights and Measures, to add Penalties,
 and direct Methods for discovering Offenders. The first was done by
 ascertaining Standards to be preserved in the *Exchequer* from whence
 Weights and Measures sized by and corresponding with the King's
 Standards were to be sent to the Cities, Boroughs, and Market
 Towns; and the last was carried so far as to authorize the Magistrates
 to examine the Offenders themselves or any of them upon Oath.

13 R. II.
 15 R. II.
 1 H. V.
 8 H. VI.
 11 H. VI.
 7, 11, 12, H. VII. But one Error in these Regulations increased the Inconveniences
 which were intended to be prevented, and probably extended them so
 far that it became impracticable to put the Laws in Execution.

That Error was, permitting the Weights and Measures sent to the
 several Cities, &c. to become Standards, from which others were made
 and dispersed for common Use; whereas if those sent from the *Ex-
 chequer* had been preserved only for Evidence to cheque and dis-
 cover Deviations from the King's original Standards, and Provision had
 been made for supplying the Subjects with Weights and Measures
 sized by those original Standards themselves, all Frauds and Mistakes
 in making them would have been avoided, and such Marks might
 have been put by the Persons authorised to deliver them out to the
 Subjects as might have secured the Use of legal Weights and Mea-
 sures or have rendered the Conviction of Offenders very easy.

To the Neglect of such a Regulation and Provision your Com-
 mittee on the fullest Consideration principally ascribe the great
 Confusion, and wide Difference in the several Weights and Measures
 throughout the Kingdom; which makes a universal Review and Re-
 formation absolutely necessary before any Regulations for preserving
 Uniformity can be put in Execution or have any Effect.

From the Consideration of the several Statutes, the Substance of
 which has been shortly recapitulated under the three foregoing Heads,
 and also the four last Resolutions of the Committee appointed the last
 Session of Parliament for the same Purposes with the present, and
 agreed to by the House the 2d June, 1758, *viz.*

“ That it ought to be made penal for any Person to have in his
 “ Possession

“ Possession any Measure or Weight that is not agreeable to the Standards.

“ That it ought to be made highly penal for any Person to make or sell any Measure or Weight that is not agreeable to the Standard.

“ That for inflicting Uniformity in Weights and Measures no Person ought to be permitted to make Weights or Measures without having first obtained a proper License for that Purpose upon the Payment of a certain Sum; and

“ That all Measures of Capacity ought to be marked with the Name of the Maker and after a proper Examination be stamped with the Initial Letters of the Name of the Person who has examined it.”

Your Committee thought it expedient to procure every Information which might enable them to form a just Opinion of the most effectual Means for inflicting Uniformity in Weights and Measures to be used for the future; and that the House may the better judge of the Opinion your Committee have formed they shall now proceed to state the Foundation of it.

There are three Subjects of Regulation *viz.* Measures of Length, Measures of Capacity, and Weights.

The first of these cannot be described in Words, but by reference to some determined Space of which a Model or Standard is previously established.

The second is capable of Description (the first being ascertained) and therefore requires neither Model nor Pattern.

The third, not being derived from the first, is incapable of such Description as the second, and therefore there must be Models, or Specimens of every Part and Multiple, required for Use of that Weight which is fixed to be the Standard.

The first and third being of a similar Nature will be mentioned after what relates particularly to the second; which, being

Measures of Capacity, are by the Resolutions of the former Committee agreed to by the House to be determined by the Cubical Inches they contain.

To ascertain these Measures, or to discover their Excess, or Defects, the Art of gauging is necessary, and such Measures being made in different Parts of the Country, and universally dispersed; therefore in order to know what might be the best and easiest Regulations for the Subjects; your Committee examined Mr. Matthew Lowthian Correspondent &c. and Mr. Simon Verlander and Mr. John Barret General Excise Examiners. And Mr. Matthew Lowthian informed your Committee that there are in *England* 49 Collections of Excise, to which there are appointed about 230 Supervisors, and above 3000 Excisemen—That the Collections are made, and the Money paid, in every Market Town in the Country, to the Collector appointed by the Commissioners of Excise, and that the inferior Officers of Excise are permitted to receive no Money arising from any Duties, except those of the Coach and Plate Duties, for the Receipt of those the Collector is impowered to appoint such Officers as he thinks fit—The Coach and Plate Duty have made no Increase in the Expence of collecting in the

the Country — The inferior Officers of Excise (on Account of the Smallness of the Sums) are allowed to receive the Duty from People that brew Ale for Fairs, and pay it to the Collector the next fitting Day — The Commissioners of Excise license Plate and Spirituous Liquors — the Collector and Supervisors grant Licenses to retail Spirituous Liquors — That he apprehends, if the Officers of Excise were to size Measures, it would necessarily take them from some Part of their Duty — That no Inconvenience could arise from trusting an Officer with a Mark to mark Measures; for they are now entrusted with those Marks that they mark Hides with — That he thinks that if Measures are to be reviewed annually at a fixed Time it would answer no Purpose; and if the Officers were allowed to do it at such Times as they thought proper under the Direction of the superior Officer, it would be a great Interruption to their present Business — But if the Commissioners of Excise were to appoint as many Officers as there are Supervisors at 50*l.* or 60*l.* a Year each he apprehends they could execute this Office; but has a Doubt whether any small Duty to be imposed would be sufficient to pay the Expence — That in the collecting of the Hop Duty supernumerary Officers of Excise are appointed with a Salary of 25*l.* Pound a Year, besides riding Charges. And he thinks, that if every Collector in every District was to have two Supernumeraries instead of one they might go through any Business that might be requisite for the sizing and sealing of Weights and Measures. In this Mr. *Simon Verlander* and Mr. *John Barret* agree in Opinion with Mr. *Lowthian*.

And your Committee were also informed, that it would be an Ease to the Subject, and tend to the Discovery of Offenders, if every Maker of Measures of Capacity was to have a Licence only from the Chief Excise-Officer of the Division in which such Maker lived, to whom Measures made by him should be brought, and marked with the initial Letters of such Officer's Name, and such further private Mark as should be appointed; and if the Sum to be paid at the Time of marking each Measure did not exceed for every Bushel, or other greater Measure, 4*d.* for every Measure less than a Bushel down to a Half-peck 3*d.* and for every Half-peck 2*d.* and every smaller Measure 1*d.* each; for every greater Measure than a Gallon 4*d.* for a Gallon, and every lesser Measure to a Quart inclusive 3*d.* and for every Measure less than a Quart a Penny each; any inferior Excise Officer of the Division, in which the Maker of any of the said Measures dwell, might be trusted with the Receipt of the said Sums, to be paid to the Collector at the next Collection, without putting the Makers to the Expence, and Trouble of carrying their Measures to any great Distance from their Home to be sized, and marked; and these Regulations once complied with no others different from the general Rules applicable to all Measures and Weights would be necessary for Measures of Capacity.

The first and third Subjects of Regulation before-mentioned *viz.* Measures of Length and Weights, before they can be delivered out to the Subjects for Use require a different Regulation, and it being absolutely necessary, that they should be sized and ascertained by one and the same respective Standard; your Committee had the following Propositions

Propositions offered to them which after particular Examination appeared to them of the greatest Consequence.

1. That Models or Patterns of Measures of Length and Weights established as the genuine Standards of the Kingdom should be made of fine hard Metal, and deposited in the same Place and kept in the same Manner as the Trial Pieces for the Coin used on Trials of the Pix are preserved in the *Exchequer*.
2. That other exact Copies of the said Standards should be made, by which all Measures of Length and Weights to be delivered to the Subjects should be sized, ascertained, and marked by the Persons authorized to size the same, with one General Mark; and also with some private Mark; the better to discover any Forgery or Alteration in the Weight or Measure.
3. That the Standards first above mentioned should be only at certain Times, before certain Officers, produced in Order to try and rectify the Copies made use of to ascertain the Weights and Measures issued to the Subject.
4. That certain Persons, and one particular Office, should be established at a convenient Distance from the *Exchequer*; where the Trial Standards are to be deposited, especially for the ascertaining sizing and marking all Measures of Length and Weights whatsoever which are for the future to be used.
5. That this Office should consist of at least four Commissioners, four Clerks, a Chief Workman, and inferior Labourers and the Expence of such Office might be defrayed by certain small Sums payable upon the assizing of Measures and Weights; and by what should be produced from Annual Licences granted to the Makers both of Measures and Weights.
6. That at the said Office any Measures of Length, or Weights whatsoever, being Parts, Multiples, or bearing a certain Proportion to the Standard, might be sized, marked, and delivered out, provided that their respective Measure or Weight according to the Standard be marked thereon.
7. That all Weights should be marked upon the Ring which is fixed in the Cast Iron, and through which the Handle is put, with a particular Mark of the Office for sizing of Weights, and also upon the Handle, with such Mark as the Commissioners for sizing of Weights at the Time of sizing such Weights shall think fit.
8. That all Weights, or Measures of Length requiring to be reviewed, or reformed, should, if within a certain Distance of the Office to be established, if they are nearly adjusted to the Standard, be brought or sent to the said Office to be re-assized and marked as legal.
9. That from this Office a Copy of the Standard for Length and a Set of Standard Weights should be sent, at the Expence of the Public, to every Excise Division, to be kept by the Supervisor of the Excise for the Time being, and produced when called for, in Manner hereinafter mentioned, as Evidence, where any Meafure or Weight shall be called in Question.
10. That all Weights beyond the aforesaid Distance of from *London*, which shall upon Examination be found more deficient

ent than computed to arise from the Use of the Weight only should have the stamped or sized Part taken out in the Presence of two Commissioners, and the Ring on which the other Stamp is put to be broke, and such Penalty inflicted, as shall be thought proper; but if the Deficiency of the Weight does not exceed the said allowed for Waste in using; then the said Commissioners in the Presence of the Excise Officer of the District, appointed to size Measures, shall take out the stamp Part of such Weight and see the Mark immediately obliterated and cause, in his Presence, another such Part to be added so as to make the said Weight equal to the Standard again and mark the same on the like Place where the former was marked, with the like Mark, as the Officer of Excise of that District then uses for Measures; giving to the Party a Certificate containing the Description of the Weight so marked, and the Mark put thereon, the Party receiving such Weight paying to the Excise Officer for the same over and above the Expence of making such Alteration.

11. That as too many Gentlemen in the Country decline acting in the Commission of the Peace, which is believed to arise from the Intricacy of the Duty, and the Extent of the Jurisdiction; such Persons as may be thought proper in each Country may be especially appointed to hear and determine and put the Law in Execution in respect only to Weights and Measures.

12. That the said Commissioners should have all the Powers of enquiring, fining, imprisoning, inflicting, or mitigating such Penalties as the Legislature shall think necessary; particularly at their Discretion to send for any Measures or Weights they may think fit; and also for the Standards mentioned in Article the 9th; kept as Evidence in the nearest Excise Division, in order to examine or try whether such Measure or Weight be agreeable to the Standard; and the Carriage of such Standards, to be used as Evidence, should be at the County Expence for which the Justices at the Quarter Sessions should make a reasonable Allowance.

13. That in order to give Time to the Subjects to be acquainted with the Law, and provide themselves with Measures, and Weights; a convenient distant Time for the Operation of the Law should be allowed: And that in the mean Time an Abstract of the new Statute should be printed, and hung up in some open Place in every Market, and also on the Door of every Parish Church, and be publickly read at every Quarter Sessions during a certain Period.

14. That a distinct Account should be kept of all the Money arising by Weights and Measures, and such Money should be set apart for defraying the Charges attending the Execution of the Law for inforcing Uniformity therein.

The aforesaid Information and these Propositions your Committee have stated at large that the House might, in such farther Progress of this Matter as may be thought fit, have all the Lights which the Committee could obtain relating to the Subjects referred to them, and upon Consideration of the Whole,

Your Committee were of the Opinion expressed in the following Resolutions.

Resolved,

Resolved,

That it is the Opinion of this Committee, that the Ell ought to contain one Yard and one Quarter, according to the Yard mentioned in the 3d Resolution of the former Committee upon the Subject of Weights and Measures, agreed to by the House the 2d *June* 1758, and the Pole or Perch in Length five such Yards and an Half, the Furlong 220 such Yards, and the Mile 1760 such Yards.

Resolved,

That it is the Opinion of this Committee, that the superficial Perch should contain 30 square Yards and a Quarter, and the Rood should contain 1210 square Yards, and the Acre 4840 square Yards aforesaid.

Resolved,

That it is the Opinion of this Committee, that according to the 4th, 5th, and 6th Resolutions of the former Committee upon the Subject of Weights and Measures agreed to by the House the 2d *June* 1758, the Quart ought to contain $70\frac{1}{4}$ cubical Inches, the Pint $35\frac{1}{4}$, the Peck 564, and the Bushel 2256.

Resolved,

That it is the Opinion of this Committee, that the several Parts of the Pound, which is mentioned in the 8th Resolution of the former Committee upon the Subject of Weights and Measures agreed to by the House the 2d *June* 1758, examined and adjusted in the Presence of this Committee, and herewith produced, *viz.* the $\frac{1}{2}$ lb. or 6 Ounces, $\frac{1}{4}$ lb. or 3 Ounces, 2 Ounces, 1 Ounce, 2 Half-ounces, the 5 Penny-weights, 3 Penny-weights, 2 Penny-weights, and 1 Penny-weight, the 12 Grain, 6 Grain, 3 Grain, 2 Grain, and two of 1 Grain each, ought to be the Models of the several Parts of the said Pound, and to be used for sizing or adjusting Weights for the future.

Resolved,

That it is the Opinion of this Committee, that all Weights exceeding a Pound should be of Brass, Copper, Bell-metal, or cast Iron, and all those which shall be of cast Iron should be made in the Form and with a Handle of hammered Iron, such as the Pattern herewith produced, with the Mark of the Weight cast in the Iron; and all Weights of a Pound or under should be of Gold, Silver, Brass, Copper, or Bell-metal.

Resolved,

That it is the Opinion of this Committee, that all Weights of cast Iron should have the initial Letters of the Name of the Maker upon the upper Bar of the Handle; and all other Weights should have the same, together with the Mark of the Weight, according to the Standard, upon some convenient Part thereof.

Resolved,

That it is the Opinion of this Committee, that the Yard mentioned in the 2d Resolution of the former Committee upon the Subject of Weights and Measures, agreed to by the House the 2d *June* 1758, being the Standard of Length, and the Pound mentioned in the 8th Resolution of the former Committee upon the Subject of Weights

and

and Measures, agreed to by the House the 2d June 1758, being the Standard of Weight, ought to be deposited in the Court of the Receipt of the Exchequer, and there safely kept under the Seals of the Chancellor of the Exchequer, and of the Chief Baron, and the Seal of Office of the Chamberlains of the Exchequer, and not to be opened, but by the Order and in the Presence of the Chancellor of the Exchequer, and the Chief Baron, for the Time being.

Resolved,

That it is the Opinion of this Committee, that the most effectual Means to ascertain Uniformity in Measures of Length and Weights to be used throughout the Realm, would be, to appoint certain Persons at one particular Office, with Clerks and Workmen under them, for the Purpose only of sizing and adjusting, for the Use of the Subjects, all Measures of Length, and all Weights being Parts, Multiples, or certain Proportions of the Standards, to be used for the future.

Resolved,

That it is the Opinion of this Committee, that a Model or Pattern of the said Standard Yard mentioned in the 2d Resolution of the former Committee agreed to by the House 2d June 1758, and now in Custody of the Clerk of the House, and a Model or Pattern of the Standard Pound, mentioned in the 8th Resolution of the former Committee agreed to by the House 2d June 1758, together with Models or Patterns of the Parts of the said Pound now presented to the House, and also of the Multiples of the said Pound mentioned in this Report (when the same are adjusted) should be kept in the said Office, in Custody of the said Persons to be appointed for sizing Weights and Measures, under the Seal of the Chief Baron of the Court of Exchequer for the Time being, to be opened only by Order of the said Chief Baron in his Presence, or the Presence of one of the Barons of the Exchequer, on the Application of the said Persons, for the Purpose of correcting and adjusting, as Occasion shall require, the Patterns or Models used at the said Office, for sizing Measures of Length and Weights delivered out to the Subjects.

Resolved,

That it is the Opinion of this Committee, that Models or Patterns of the said Standard Yard and Standard Pound aforesaid, and also Models or Patterns of the Parts and Multiples aforesaid of the said Pound, should be lodged in the said Office for the sizing of such Measures of Length or Weights, as being Parts, Multiples, or Proportions of the said Standards, shall hereafter be required by any of his Majesty's Subjects.

Resolved,

That it is the Opinion of this Committee, that all Measures of Length and Weights, sized at the said Office, should be marked in some convenient Part thereof, with such Marks as shall be thought expedient to shew the Identity of the Measures and Weights sized at the said Office, and to discover any Frauds that may be committed therein.

Resolved,

Resolved,

That it is the Opinion of this Committee, that the said Office should be kept within a convenient Distance of the Court of Exchequer at *Westminster*; and that all Measures of Length and Weights, within a certain Distance of *London*, shall be corrected and re-affized, as Occasion shall require, at the said Office.

Resolved,

That it is the Opinion of this Committee, that in order to inforce Uniformity in Weights and Measures to be used for the future, all Persons appointed by the Crown to act as Justices of the Peace in any County, or City, or Town Corporate, being respectively Counties within themselves, throughout the Realm, should be impowered to hear and determine, and put the Law in Execution in Respect to Weights and Measures only, without any of them being obliged to sue out a *Dedimus*, or to act in any other Matter; and the said Commissioners should be impowered to fine and imprison, and to inflict or mitigate such Penalties as shall be thought proper, and have such other Authorities as shall be necessary for compelling the Use of Weights and Measures agreeable to the aforesaid Standards.

Resolved,

That it is the Opinion of this Committee, that Models or Patterns of the said Standard Yard and Pound, and of the Parts and Multiples thereof beforementioned, should be distributed in each County in such Manner as to be readily used for Evidence in all Cases where Measures and Weights shall be questioned before the said Commissioners, and for adjusting the same in a proper Manner.

The said Resolutions being read a second Time, were agreed to by the House.

Ordered,

That the said Report, together with the Proceedings of the House thereupon, be printed; and that Mr. Speaker do appoint the printing thereof; and that no Person, but such as he shall appoint, do presume to print the same.

Ordered,

That the Troy Pound Weight, which upon the 4th Day of *December* last was referred to the said Committee, be locked up by the Clerk of this House, and kept by him.

Ordered,

That the severall Weights, the Pattern of a Weight, and also the Model for a Handle of an Half-hundred Weight, referred to in the said Report, be locked up by the Clerk of this House, and kept by him.

